

# RCA2-RP3N

ROBO Cylinder Mini Rod Type Short-Length Tapped-Hole Mounting Type  
28mm Width 24V Servo Motor Lead Screw

■ Configuration: **RCA2** — **RP3N** — **I** — **10** — **30** — — — — — — — — — —

Series — Type — Encoder — Motor — Lead — Stroke — Compatible Controllers — Cable Length — Option

I: Incremental  
\* The Simple absolute encoder is also considered type "I".

10 : 10W Servo Motor

4S : 4mm lead screw  
2S : 2mm lead screw  
1S : 1mm lead screw

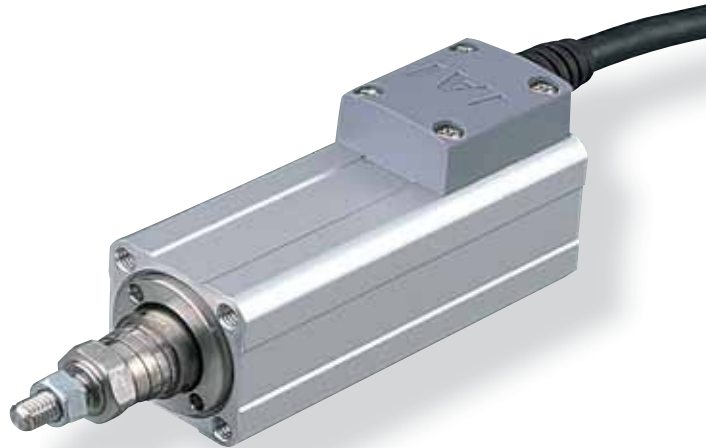
30 : 30mm

A1 : ACON  
RACON  
ASEL  
A3 : AMEC  
ASEP

N : None  
P : 1m  
S : 3m  
M : 5m  
X □□ : Custom

K2 : Connector Cable exit direction  
LA : Power-saving

\* See page Pre-35 for an explanation of the naming convention.



**Power-saving**

Technical References P. A-5

- POINT**  
Notes on Selection
- The lead screw is not equipped with an anti-rotation device. Therefore, when using the actuator, add an anti-rotation device such as a guide to the end of the lead screw prior to use. (Without an anti-rotation device, the lead screw will rotate, and will not extend or retract.)
  - The load capacity is based on operation at an acceleration of 0.2G. This is the upper limit of the acceleration.
  - Do not apply any external force on the rod from any direction other than the direction of the rod's motion.
  - This model uses a lead screw. Please ensure that your usage is appropriate for its characteristics. (See page Pre-42 for more information.)

Actuator Specifications								
■ Lead and Load Capacity								
Model	Motor Output (W)	Feed Screw	Lead (mm)	Max. Load Capacity		Rated Thrust (N)	Positioning Repeatability (mm)	Stroke (mm)
RCA2-RP3N-I-10-4S-30-①-②-③	10	Lead Screw	4	0.25	0.125	25.1	±0.05	30 (Fixed)
RCA2-RP3N-I-10-2S-30-①-②-③			2	0.5	0.25	50.3		
RCA2-RP3N-I-10-1S-30-①-②-③			1	1	0.5	100.5		

Legend ① Compatible controller ② Cable length ③ Options (Unit: mm/s)

■ Stroke and Maximum Speed		
Lead Screw	Stroke	30 (mm)
	4	200
2	100	
1	50	

Stroke List	
Stroke (mm)	Standard Price
	30

② Cable List		
Type	Cable Symbol	Standard Price
Standard (Robot Cables)	P (1m)	-
	S (3m)	-
	M (5m)	-
Special Lengths	X06 (6m) ~ X10 (10m)	-
	X11 (11m) ~ X15 (15m)	-
	X16 (16m) ~ X20 (20m)	-

\* The RCA2 comes standard with a robot cable.  
\* See page A-39 for cables for maintenance.

③ Option List			
Name	Option Code	See Page	Standard Price
Connector cable exit direction	K2	→ A-32	-
Power-saving	LA	→ A-32	-

Actuator Specifications	
Item	Description
Drive System	Lead Screw ø4mm C10 grade
Lost Motion	0.3mm or less (initial value)
Frame	Material: Aluminum (white alumite treated)
Ambient Operating Temp./Humidity	0~40°C, 85% RH or less (non-condensing)
Service Life	Horizontal: 10 million cycles Vertical: 5 million cycles

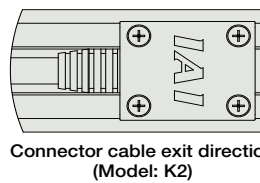
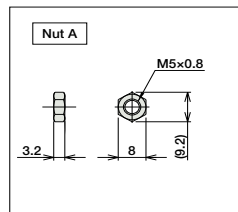
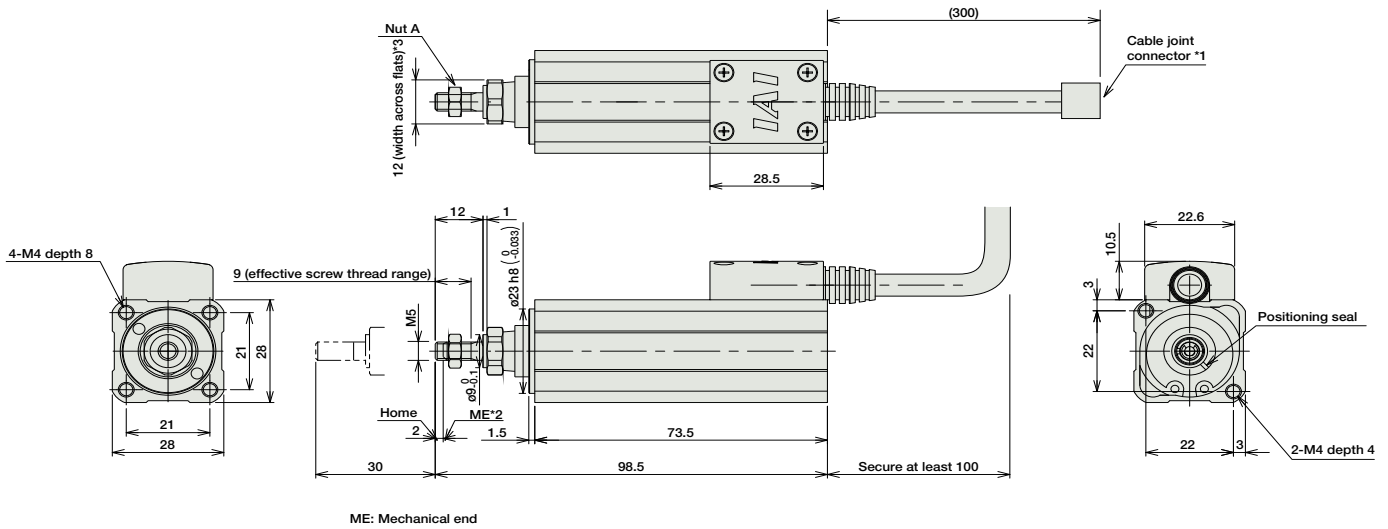
Dimensions

CAD drawings can be downloaded from IAI website. [www.intelligentactuator.com](http://www.intelligentactuator.com)

For Special Orders P. A-9



- \*1 A motor-encoder cable is connected here. See page A-39 for details on cables.
- \*2 When homing, the rod moves to the mechanical end; therefore, please watch for any interference with the surrounding objects.
- \*3 The orientation of the bolt will vary depending on the product.



\* Rotates 180 degrees with respect to the standard model.

■ Dimensions/Weight by Stroke

Stroke	30
Weight (kg)	0.2

① Compatible Controllers

The RCA2 series actuators can operate with the controllers below. Select the controller according to your usage.

Name	External View	Model	Description	Max. Positioning Points	Input Voltage	Power Supply Capacity	Standard Price	See Page
Solenoid Valve Type		AMEC-C-10①-NP-2-1	Easy-to-use controller, even for beginners	3 points	AC100V	2.4A rated	-	→ P477
Splash-Proof Solenoid Valve Type		ASEP-C-10①-NP-2-0 ASEP-CW-10①-NP-2-0	Operable with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type.				-	→ P487
Positioner Type		ACON-C-10①-NP-2-0	Positioning is possible for up to 512 points	512 points	DC24V	(Standard) 1.3A rated 4.4A max.  (Power-saving) 1.3A rated 2.5A max.	-	→ P535
Safety-Compliant Positioner Type		ACON-CG-10①-NP-2-0					-	
Pulse Train Input Type (Differential Line Driver)		ACON-PL-10①-NP-2-0	Pulse train input type with differential line driver support	(-)	DC24V	(Standard) 1.3A rated 4.4A max.  (Power-saving) 1.3A rated 2.5A max.	-	→ P535
Pulse Train Input Type (Open Collector)		ACON-PO-10①-NP-2-0	Pulse train input type with open collector support				-	
Serial Communication Type		ACON-SE-10①-N-0-0	Dedicated to serial communication	64 points			-	
Field Network Type		RACON-10①	Dedicated to field network	768 points			-	→ P503
Program Control Type		ASEL-C-1-10①-NP-2-0	Programmed operation is possible Operation is possible on up to 2 axes	1500 points			-	→ P567

\* This is for the single-axis ASEL.  
\* ① is a placeholder for the code "LA" if the power-saving option is specified.